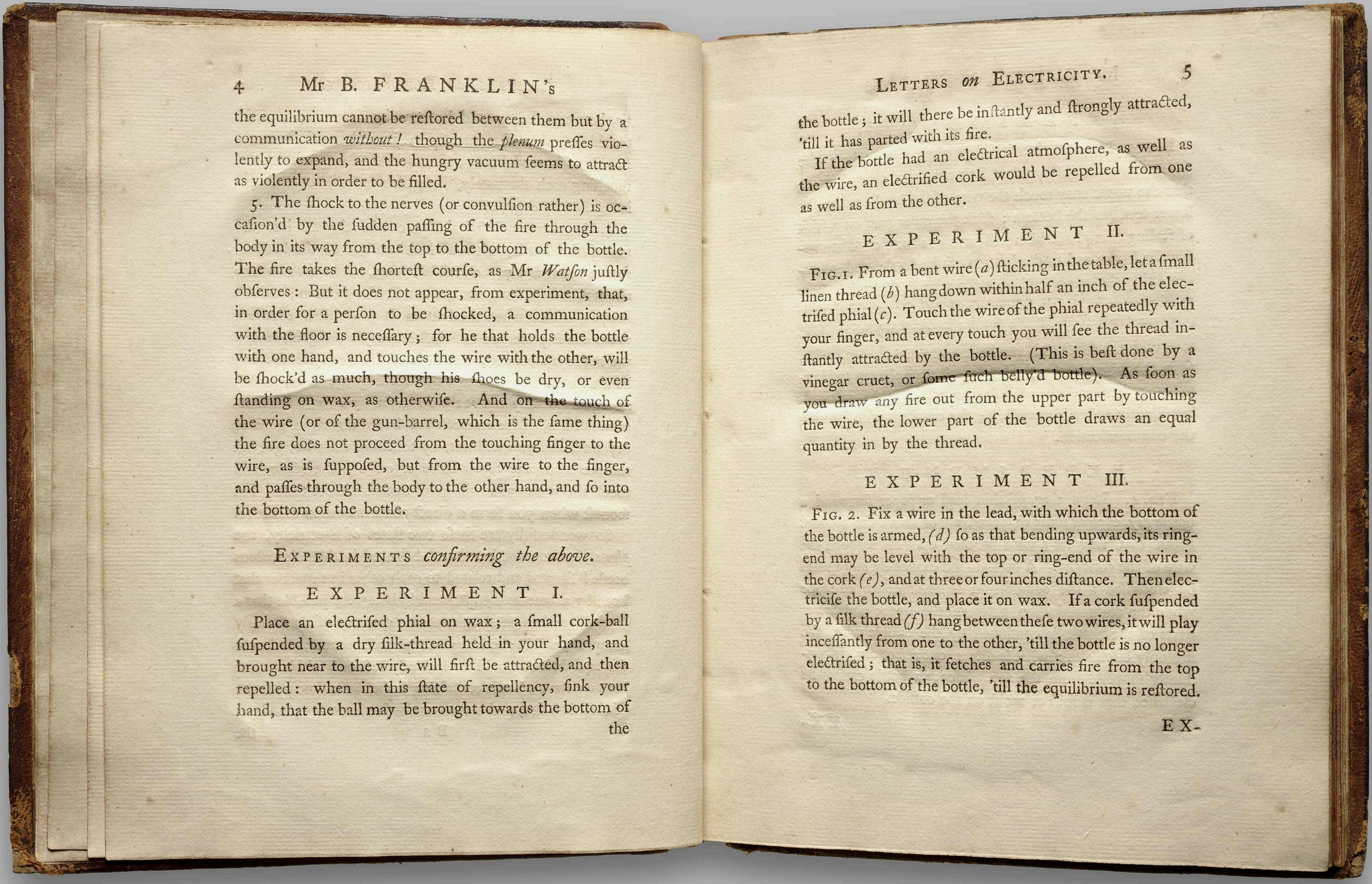

the equilibrium cannot be reſtored between them but by a communication *without!* though the *plenum* preſſes violently to expand, and the hungry vacuum ſeems to attract as violently in order to be filled.

5. The ſhock to the nerves (or convulſion rather) is occaſion'd by the ſudden paſſing of the fire through the body in its way from the top to the bottom of the bottle. The fire takes the ſhorteſt courſe, as Mr *Watſon* juſtly obſerves: But it does not appear, from experiment, that, in order for a perſon to be ſhocked, a communication with the floor is neceſſary; for he that holds the bottle with one hand, and touches the wire with the other, will be ſhock'd as much, though his ſhoes be dry, or even ſtanding on wax, as otherwiſe. And on the touch of the wire (or of the gun-barrel, which is the ſame thing) the fire does not proceed from the touching finger to the wire, as is ſuppoſed, but from the wire to the finger, and paſſes through the body to the other hand, and ſo into the bottom of the bottle.

EXPERIMENTS *confirming the above.*

EXPERIMENT I.

Place an electriſed phial on wax; a ſmall cork-ball ſuſpended by a dry ſilk-thread held in your hand, and brought near to the wire, will firſt be attracted, and then repelled: when in this ſtate of repellency, ſink your hand, that the ball may be brought towards the bottom of

the

the bottle; it will there be inſtantly and ſtrongly attracted, 'till it has parted with its fire.

If the bottle had an electrical atmoſphere, as well as the wire, an electrified cork would be repelled from one as well as from the other.

EXPERIMENT II.

FIG. 1. From a bent wire (*a*) ſticking in the table, let a ſmall linen thread (*b*) hang down within half an inch of the electriſed phial (*c*). Touch the wire of the phial repeatedly with your finger, and at every touch you will ſee the thread inſtantly attracted by the bottle. (This is beſt done by a vinegar cruet, or ſome ſuch belly'd bottle). As ſoon as you draw any fire out from the upper part by touching the wire, the lower part of the bottle draws an equal quantity in by the thread.

EXPERIMENT III.

FIG. 2. Fix a wire in the lead, with which the bottom of the bottle is armed, (*d*) ſo as that bending upwards, its ring-end may be level with the top or ring-end of the wire in the cork (*e*), and at three or four inches diſtance. Then electriciſe the bottle, and place it on wax. If a cork ſuſpended by a ſilk thread (*f*) hang between theſe two wires, it will play inceſſantly from one to the other, 'till the bottle is no longer electriſed; that is, it fetches and carries fire from the top to the bottom of the bottle, 'till the equilibrium is reſtored.

EX-

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